

PATENTS
Atty. Docket No. HYZ-069CN

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

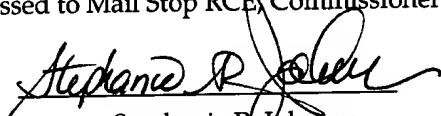
Applicant:	Agrawal	Art Unit:	1635
Serial No.:	09/837,806	Examiner:	Zara, Jane J.
Filing Date:	April 18, 2001	Customer No.:	23483
Title:	Novel HIV-Specific Synthetic Oligonucleotides and Methods of Their Use	Confirmation No.:	8489

CERTIFICATION UNDER 37 CFR § 1.8(a)

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail with sufficient postage in an envelope addressed to Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

22 Sept. 2003

Date of Signature and
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Stephanie R. Johnson

Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

Pursuant to 37 C.F.R. § 1.97(b)(4), Applicant and his legal representatives hereby make of record the following references which are known by them and considered warranting disclosure under 37 C.F.R. § 1.56. The best available copy of the references cited on the attached form PTO-1449 are submitted herewith.

This statement is not to be interpreted as a representation that the cited publications are material, that an exhaustive search has been conducted, or that no other relevant information exists. Nor shall the citation of any publication herein be construed *per se* as a representation that such publication is prior art. Moreover, Applicant understands that the Examiner will make an independent evaluation of the cited publications.

This Information Disclosure Statement is being filed concurrently with a Request for Continued Examination under 37 C.F.R. § 1.114. Accordingly, no fee is believed to be due in connection with this submission pursuant to 37 C.F.R. §1.97(b)(4). However, please charge any underpayment or credit any overpayment to Deposit Account No. 08-0219.

If there are any questions, please call the undersigned at the telephone number indicated below.

Respectfully submitted,

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**INFORMATION DISCLOSURE
IN AN APPLICATION**

(Use several sheets if necessary)

Sheet

2

OF

3

Docket Number
**HYZ-069CN
(47508.530)**

Application Number
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Applicant
Agrawal

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Group Art Unit
1635

A14	Beaucage (1993) "Oligodeoxyribonucleotides Synthesis" in <i>Methods in Molecular Biology</i> , Vol. 20: <i>Protocols for Oligonucleotides and Analogs</i> , (Agrawal, ed.) Humana Press, Totowa, NJ, pp.33-61
A15	Brown (1993) "A Brief History of Oligonucleotide Synthesis" in <i>Methods in Molecular Biology</i> , Vol. 20: <i>Protocols for Oligonucleotides and Analogs</i> , pp. 1-17
A16	Craig et al. (1997) "Patent strategies in the antisense oligonucleotide based therapeutic approach" <i>Exp. Opin. Ther. Patents</i> 7(10):1175-1182
A17	Database CAS Registry (2003), (Date of entry: 1997), Registry number 193635-63-1
A18	Froehler (1993) "Oligodeoxynucleotide Synthesis," <i>Methods in Molecular Biology</i> , Vol. 20: <i>Protocols for Oligonucleotides and Analogs</i> (Agrawal, ed.) Humana Press, Towtowa, NJ, pp. 63-80
A19	Galderisi et al. (1999) "Antisense Oligonucleotides as Therapeutic Agents" <i>J. Cell. Physiol.</i> 181:251-257
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A21	Goodchild et al. (1988) "Inhibition of Human Immunodeficiency Virus Replication by Antisense Oligodeoxynucleotides," <i>Proc. Natl. Acad. Sci. USA</i> 85:5507-5511
A22	Harrison et al. (1991) "Determination of the Secondary Structure of the Packaging Signal of HIV-1" in <i>RNA Tumor Viruses</i> (Coffin et al., eds.) Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, p. 235
A23	Iyer et al. (1995) "A Novel Nucleoside Phosphoramidite Synthon Derived From 1R, 2S-Ephedrine," <i>Tetrahedron: Asymmetry</i> 6(5):1051-1054
A24	Krieg et al. (1995) "CpG Motifs in Bacterial DNA Trigger Direct B-Cell Activation," <i>Nature</i> 374:546-549
A25	Lisziewicz et al. (1992) "Specific Inhibition of Human Immunodeficiency Virus Type 1 Replication by Antisense Oligonucleotides: An <i>In Vitro</i> Model for Treatment", <i>Proc. Natl. Acad. Sci. USA</i> 89:11209-11213
A26	Lisziewicz et al. (1993) "Long-Term Treatment of Human Immunodeficiency Virus-Infected Cells with Antisense Oligonucleotide Phosphorothioates", <i>Proc. Natl. Acad. Sci. USA</i> 90:3860-3864
A27	Lisziewicz et al. (1994) "Antisense Oligodeoxynucleotide Phosphorothioate Complementary to Gag mRNA Blocks Replication of Human Immunodeficiency Virus Type 1 in Human Peripheral Blood Cells", <i>Proc. Natl. Acad. Sci. USA</i> 91:7942-7946
A28	Matsukura et al. (1988) "Synthesis of Phosphorothioate Analogues of Oligodeoxyribonucleotides and Their Antiviral Activity Against Human Immunodeficiency Virus (HIV)," <i>Gene</i> 72:343-347
A29	Matsukura et al. (1989) "Regulation of Viral Expression of Human Immunodeficiency Virus <i>In Vitro</i> by an Antisense Phosphorothioate Oligodeoxynucleotide Against <i>rev(artrs)</i> in Chronically Infected Cells," <i>Proc. Natl. Acad. Sci. USA</i> 86:4244-4248
A30	Matsukura et al. (1991) "A New Concept in AIDS Treatment: An Antisense Approach and Its Current Status Towards Clinical Application," in <i>Prospects for Antisense Nucleic Acid Therapy of Cancer and AIDS</i> (Wickstrom, ed.), Wiley-Liss, Inc., pp. 159-178
A31	Metelev et al. (1998) "HPLC of Oligodeoxyribonucleoside Phosphorothioates", Abstract No. 151268f, <i>Chemical Abstracts</i> , 128(13):272
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A33	Milligan, et al. (1993) "Current Concepts in Antisense Drug Design", <i>Journal of Medicinal Chemistry</i> , 36(14):1923-1937
A34	Milner et al. (1997) "Selecting Effective Antisense Reagents on Combinatorial Oligonucleotide Arrays," <i>Nature Biotech.</i> 15:537-541
A35	Rojanasakul (1996) "Antisense Oligonucleotide Therapeutics: Drug Delivery and Targeting," <i>Adv. Drug Del. Rev.</i> Vol. 18:115-131
A36	Sarin et al. (1988) "Inhibition of Acquired Immunodeficiency Syndrome Virus by Oligodeoxynucleoside Methylphosphonates," <i>Proc. Natl. Acad. Sci. USA</i> 85:7448-7451
A37	Sonneaux (1994) "Protecting Groups in Oligonucleotide Synthesis," <i>Methods in Molecular Biology</i> , Vol. 26: <i>Protocols for Oligonucleotide Conjugates</i> (Agrawal, ed.), pp. 1-71
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A39	Uhlmann et al. (1990) "Antisense Oligonucleotides: A New Therapeutic Principle," <i>Chem. Rev.</i> 90(4):543-584

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation is considered, whether or not citation is in conformance with MPEP § 609: Draw Line through citation if not conformance and not considered. Include copy with next communication to applicant.

INFORMATION DISCLOSURE IN AN APPLICATION <i>(Use several sheets if necessary)</i>				Docket Number HYZ-069CN (47508.530)	Application Number 09/837,806	
				Applicant Agrawal		
				Filing Date April 18, 2001	Group Art Unit 1635	
Sheet	1	OF	3			

U.S. Patent Documents

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	4,309,404	01/05/82	DeNeale et al.			
	4,309,406	01/05/82	Guley et al.			
	4,556,552	12/03/85	Porter et al.			
	4,704,295	11/03/87	Porter et al.			
	5,627,277	05/06/97	Cohen et al.			

Foreign Patent Documents

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	WO 94/08004	04/14/94	PCT				
	WO 95/18813	07/13/95	PCT				
	WO96/12497	05/02/96	PCT				
	WO 97/06662	02/27/97	PCT				
	WO 98/40058	9/17/1998	PCT				

Other Documents (Including Author, Title, Date Pertinent Pages, Etc.)

\ A1	Agrawal et al. (1987) "Oligodeoxynucleoside Methylphosphonates: Synthesis and Enzymic Degradation," <i>Tetrahedron. Lett.</i> 28(31):3539-3542
\ A2	Agrawal et al. (1988) "Oligodeoxynucleoside Phosphoramidates and Phosphorothioates as Inhibitors of Human Immunodeficiency Virus, <i>Proc. Natl. Acad. Sci. USA</i> 85:7079-7083
\ A3	Agrawal et al. (1989) "Inhibition of Human Immunodeficiency Virus in Early Infected and Chronically Infected Cells by Antisense Oligodeoxynucleotides and Their Phosphorothioate Analogues," <i>Proc. Natl. Acad. Sci. USA</i> 86:7790-7794
\ A4	Agrawal (1991) "Antisense Oligonucleotides: A Possible Approach for Chemotherapy of Aids", in <i>Prospects for Antisense Nucleic Acid Therapy of Cancer and AIDS</i> , (Wickstrom, ed.) Wiley-Liss, Inc., pp. 143-158
\ A5	Agrawal (1992) "Antisense Oligonucleotides as Antiviral Agents," <i>Trends in Biotechnology</i> 10:152-158
\ A6	Agrawal et al. (1992) "Cellular Uptake and Anti-HIV Activity of Oligonucleotides and Their Analogs," <i>Gene Regulation: Biology of Antisense RNA and DNA</i> (Erickson and Izant, eds.) Raven Press Ltd., New York, pp. 273-283
\ A7	Agrawal, et al. (1992) "GEM*91 - An Antisense Oligonucleotide Phosphorothioate as a Therapeutic Agent for AIDS", <i>Antisense Res. Dev.</i> 2:261-266
\ A8	Agrawal et al. (1994) "Potential for HIV-1 Treatment with Antisense Oligonucleotides", <i>J. Biotech. in Healthcare</i> , 1(2):167-182.
\ A9	Agrawal, et al. (1995) "Pharmacokinetics of Antisense Oligonucleotides", <i>Clin. Pharmacokinet.</i> 28(1):7-16
\ A10	Agrawal et al. (1995) "Absorption, Tissue Distribution and <i>In Vivo</i> Stability in Rats of a Hybrid Antisense Oligonucleotide Following Oral Administration," <i>Biochem. Pharmacol.</i> 50(4):571-576
\ A11	Agrawal (1996) "Preface" in <i>Methods in Molecular Medicine: Antisense Therapeutics</i> (Agrawal,ed.) pp. v-vii
\ A12	Agrawal, et al. (1998) "Pharmacokinetics and Bioavailability of Antisense Oligonucleotides Following Oral and Colorectal Administrations in Experimental Animals", in <i>Handbook of Experimental Pharmacology</i> , Vol. 131: Antisense Research and Application, Springer-Verlag, pp. 525-543
\ A13	Agrawal (1999) "Importance of Nucleotide Sequence and Chemical Modifications of Antisense Oligonucleotides," <i>Biochimica et Biophysica Acta</i> 1489:53-68

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Sub. Form PTO-1449				Docket Number HYZ-069CN (47508.530)	Application Number 09/837,806
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Sheet	3	OF	3		

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